

EXHIBIT B

U.S. Patent No. US 11,468,984 v. Google (a subsidiary of Alphabet)

1. Claim Chart

Claim	Analysis
<p>[1.P] A device for calculating a current load level of a user, comprising:</p>	<p>Google (“Company”) makes, uses, sells and/or offers to sell a device for calculating a current load level of a user.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Company provides Google Pixel Watches such as Google Pixel 2 (“device”), which comprises a Body Response feature used for calculating stress management score (“current load level”) for the user and notifying the user such that the user either shares his feeling at that moment or take steps to reduce stress such as guided breathing and mindful sessions.</p>

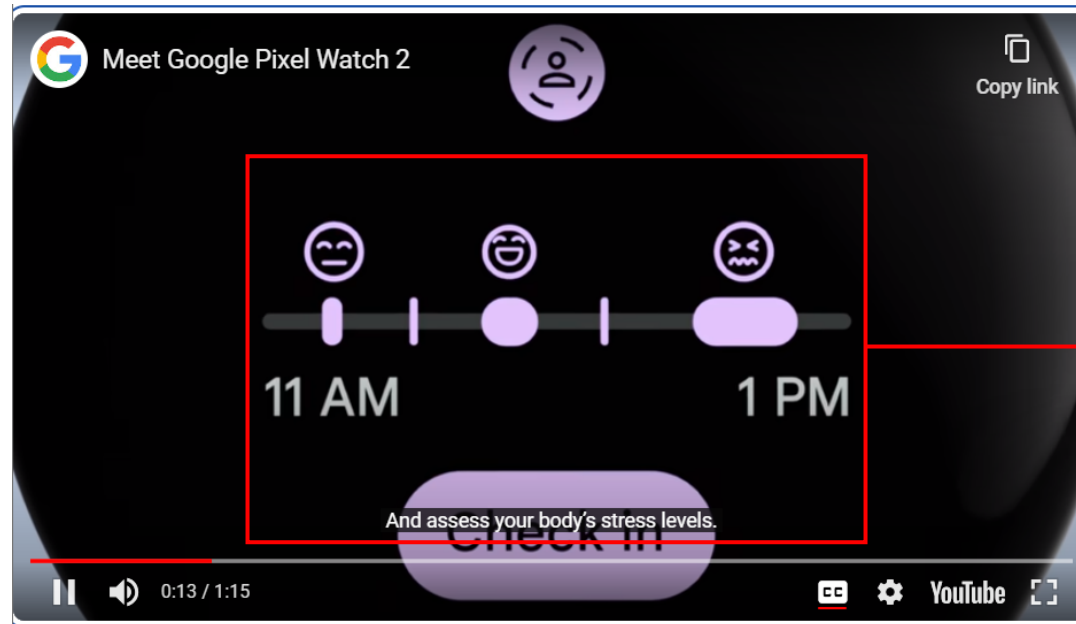


Device

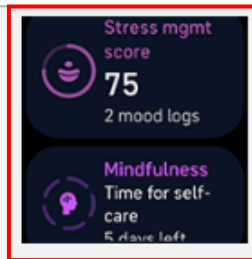
Source: <https://blog.google/products/pixel/google-pixel-watch-2/> (annotated)

We've also brought Fitbit's [Body Response](#) feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature. When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.

Source: <https://blog.google/products/pixel/google-pixel-watch-2/>



Source: https://youtu.be/1ndT_uyeK64, at 0:13 (annotated)





7. Manage your stress.

Your stress management score in the Fitbit app can help you see how your body responds to stress based on your heart rate, sleep, and activity level data.

For more information, see [How do I track and manage stress with my Fitbit device?](#)

Source: <https://support.google.com/fitbit/answer/14237107?hl=en>

	<p>Stress management score  — Current load level</p> <p>Your stress management score  in the Fitbit app can help you see how your body responds to stress based on your heart rate, sleep, and activity level data. You can also reflect on how stressed you are to see connections between how you feel and your score. This tile is available for Fitbit Charge 4, Fitbit Charge 5, Fitbit Charge 6, Fitbit Inspire 2, Fitbit Inspire 3, Google Pixel Watch 2, Fitbit Luxe, Fitbit Sense series, Fitbit Versa 2, Fitbit Versa 3, and Fitbit Versa 4 users.</p> <hr/> <p>Source: https://support.google.com/fitbit/answer/14237928 (annotated)</p> <p>Further, to the extent this element is performed at least in part by Defendant’s software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p>
<p>[1.1] a mobile end unit having: at least one signal data generating sensor integrated into the mobile end unit,</p>	<p>Company provides a mobile end unit having at least one signal data generating sensor integrated into the mobile end unit.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the Pixel 2 smartwatch (“mobile end unit”) is embedded with multiple sensors such as cEDA (continuous electrodermal activity) sensor, heart rate sensor, skin temperature sensor, and gyroscope (“at least one signal data generating sensor”) to gather biometric information such as sweat level, heart rate data, skin temperature, and movement of the user. Further, the smartwatch utilizes the Body Response feature to calculate stress score for the user.</p>



Mobile end
unit

Source: <https://blog.google/products/pixel/google-pixel-watch-2/> (annotated)

Pixel Watch 2 has three new sensors to give you deeper insights into your health. Working alongside our improved AI heart rate algorithm, an all-new heart rate sensor with numerous LEDs produces a more accurate heart rate reading than ever before.⁷ In fact, it's up to 40% more accurate for vigorous activities like HIIT, spinning and rowing.⁸ This means you'll also get more accurate readings for other important health metrics — from calories burned and Active Zone Minutes to Daily Readiness Score and sleep.

Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

We've also brought Fitbit's **Body Response** feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature. When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.

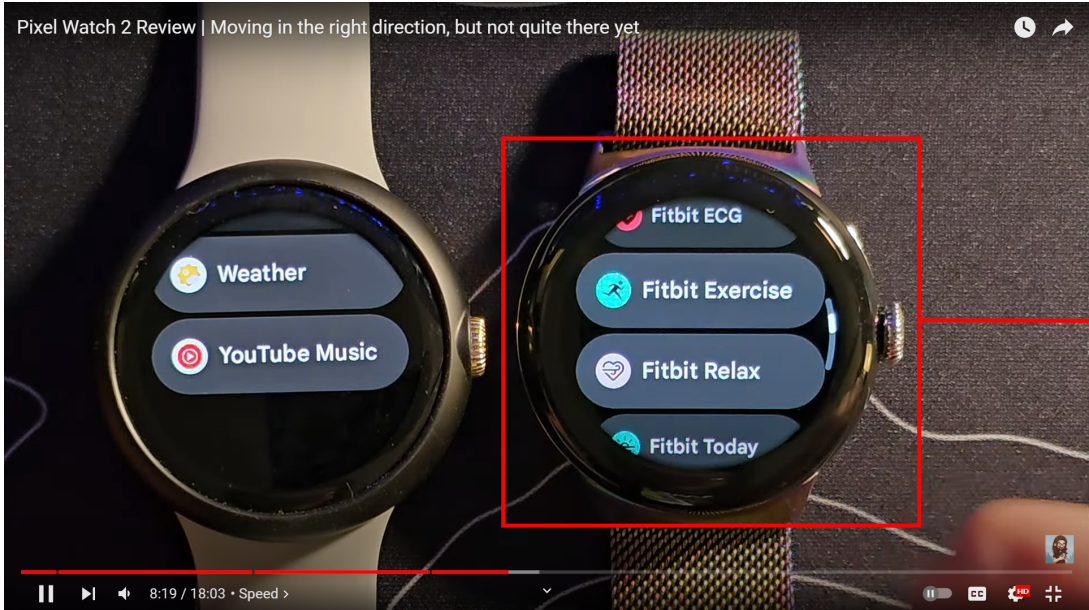
At least one
signal data
generating
sensor


Source: <https://blog.google/products/pixel/google-pixel-watch-2/> (annotated)

Sensors

- Compass
- Altimeter
- Red and infrared sensors for oxygen saturation (SpO2) monitoring⁸
- Multipurpose electrical sensors compatible with ECG app⁹
- Multi-path optical heart rate sensor¹⁰
- 3-axis accelerometer
- Gyroscope
- Ambient light sensor
- Electrical sensor to measure skin conductance (cEDA) for body response tracking
- Skin temperature sensor¹¹
- Barometer
- Magnetometer

Source: <https://support.google.com/googlepixelwatch/answer/12651869?hl=en>

	Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.
[1.2] a plurality of available applications for use by the user, and	<p>Company provides a plurality of available applications for use by the user.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the Pixel 2 smartwatch comprises multiple apps including, but not limited to, Fitbit Today, Fitbit ECG, and Fitbit Relax ("plurality of available applications") to track heart rate, sleep, movement, and blood oxygen level of the user that are further monitored by the sensors.</p>  <p>Source: https://www.youtube.com/watch?v=Xj8xxCSJ6EM, at 8:19 (annotated)</p>

Review your Fitbit activity data. Press the crown, swipe up to the Today app , and tap the app to open it. Tap to open the app, and swipe up to see your daily stats. Tap a stat to see more details.

Steps	Steps taken today and progress toward your daily goal.
Floors	Floors climbed today and progress toward your daily goal.
Distance	Distance covered today and progress toward your daily goal.
Calories burned	Distance covered today and progress toward your daily goal.
Active Zone Minutes	Active Zone Minutes and progress toward your daily goal. For more information, see What are Active Zone Minutes or active minutes on my Fitbit device?
Exercise	Number of days you met your exercise goal this week.
Hourly activity	The number of hours today you met your hourly activity goal. For more information, see What are the reminders I see on my Fitbit device?
Heart rate	Current heart rate and heart-rate zone. For more information, see How do I track heart rate with my Fitbit device?

Source: <https://support.google.com/fitbit/answer/14237107?hl=en>


Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.

[1.3] an
evaluation
unit provided

Company provides an evaluation unit provided in the mobile end unit or in a central server.

This element is infringed literally, or in the alternative, under the doctrine of equivalents.

<p>in the mobile end unit or in a central server,</p>	<p>For example, the smartwatch comprises multiple apps such as the Fitbit app that calculates multiple health parameters for the user such as heart rate, sleep score, and ECG based on the monitored data. Therefore, it would be apparent to a person having ordinary skill in the art that an evaluation unit is embedded inside the watch to calculate multiple health parameters.</p> <p>The Fitbit app on Pixel Watch can give you insights into data about your health and heart rate. Learn more at Fitbit health, heart rate, and ECG tracking on Pixel Watch.⁵</p> <p>Important: Pixel Watch 2 has a multipath heart rate sensor that captures up to 40% more accurate heart rate tracking during vigorous activities like HIIT, spinning, and rowing⁶. Your Watch can also alert you during periods of abnormally high and low heart rate throughout the day.</p> <p>Body-response sensor for stress management</p> <p>With all-day body-response tracking using a cEDA sensor, identify physical signs of stress, excitement, effects from caffeine, and more. Over time, you'll be able to recognize your stress triggers and manage them in the moment.</p> <p>For more information, go to How do I track and manage stress with my Fitbit device? Source: https://support.google.com/googlepixelwatch/answer/12759285?hl=en</p>
---	--

Review your Fitbit activity data. Press the crown, swipe up to the Today app , and tap the app to open it. Tap to open the app, and swipe up to see your daily stats. Tap a stat to see more details.

Steps	Steps taken today and progress toward your daily goal.
Floors	Floors climbed today and progress toward your daily goal.
Distance	Distance covered today and progress toward your daily goal.
Calories burned	Distance covered today and progress toward your daily goal.
Active Zone Minutes	Active Zone Minutes and progress toward your daily goal. For more information, see What are Active Zone Minutes or active minutes on my Fitbit device?
Exercise	Number of days you met your exercise goal this week.
Hourly activity	The number of hours today you met your hourly activity goal. For more information, see What are the reminders I see on my Fitbit device?
Heart rate	Current heart rate and heart-rate zone. For more information, see How do I track heart rate with my Fitbit device?


Source: <https://support.google.com/fitbit/answer/14237107?hl=en>

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.

[1.4]
wherein:

Company provides a device wherein: the mobile end unit has a further application designed for calculating biometric data about the user, at least from the at least one signal data produced by said at least one sensor, and from user data of said plurality of available applications used by the user and making the biometric data available to the evaluation unit.

<p>the mobile end unit has a further application designed for calculating biometric data about the user, at least from the at least one signal data produced by said at least one sensor, and from user data of said plurality of available applications used by the user, and making the biometric data available to the evaluation unit,</p>	<p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the Fitbit app (“further application”) installed in the smartwatch calculates different health-related metrics such as heart rate, blood oxygen level, sleep score, and ECG (“biometric data of the user”) based on the data received from the embedded sensors such as heart rate sensor and electrical sensors (“at least one signal data produced by said at least one sensor”) and the data shared by other applications installed in the smartwatch such as sleep score, sleep profile, physical activity statistics, and daily readiness score (“user data of said plurality of available applications used by the user”). Further, the smartwatch utilizes the Body Response feature to calculate stress score for the user based on the biometric data such as heart rate, heart rate variability, and skin temperature monitored by the Fitbit app (“making the biometric data available to the evaluation unit”).</p> <div style="border: 1px solid red; padding: 5px;"> <p>The Fitbit app on Pixel Watch can give you insights into data about your health and heart rate. Learn more at Fitbit health, heart rate, and ECG tracking on Pixel Watch.⁵</p> </div> <p>Important: Pixel Watch 2 has a multipath heart rate sensor that captures up to 40% more accurate heart rate tracking during vigorous activities like HIIT, spinning, and rowing⁶. Your Watch can also alert you during periods of abnormally high and low heart rate throughout the day.</p> <p>Source: https://support.google.com/googlepixelwatch/answer/12759285?hl=en</p>
--	--

Review your Fitbit activity data. Press the crown, swipe up to the Today app , and tap the app to open it. Tap to open the app, and swipe up to see your daily stats. Tap a stat to see more details.

Steps	Steps taken today and progress toward your daily goal.
Floors	Floors climbed today and progress toward your daily goal.
Distance	Distance covered today and progress toward your daily goal.
Calories burned	Distance covered today and progress toward your daily goal.
Active Zone Minutes	Active Zone Minutes and progress toward your daily goal. For more information, see What are Active Zone Minutes or active minutes on my Fitbit device?
Exercise	Number of days you met your exercise goal this week.
Hourly activity	The number of hours today you met your hourly activity goal. For more information, see What are the reminders I see on my Fitbit device?
Heart rate	Current heart rate and heart-rate zone. For more information, see How do I track heart rate with my Fitbit device?

Source: <https://support.google.com/fitbit/answer/14237107?hl=en>

Train with improved fitness tools

It's easier to train with Pixel Watch 2, too. The new Heart Rate Zone Coaching and Pace Training features can help you stay on track with your workout goals — like alerting you to a heart rate zone change during a HIIT workout or offering real-time feedback on your pace goals while marathon training. Meanwhile, automatic workout start and stop reminders are available for seven exercises, including running and outdoor cycling, to help you stick to your schedule.

Not to mention, all the Fitbit features from the original Pixel Watch will still be on Pixel Watch 2 — like Daily Readiness Score, Sleep Profile, Sleep Score, Active Zone Minutes and 40 workout modes.


Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

We've also brought Fitbit's Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature. When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.

Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.

<p>[1.5] wherein the biometric data from the at least one signal data produced by said at least one sensor, and user data of said plurality of available applications, is divided into a plurality of categories,</p>	<p>Company provides a device wherein the biometric data from the at least one signal data produced by said at least one sensor, and user data of said plurality of available applications, is divided into a plurality of categories.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the smartwatch monitors various types of health data for the user such as heart rate data, heart rate variability, skin temperature, sleep data, ECG, steps, blood oxygen level, and stress (“plurality of categories”) using different Fitbit applications.</p>
---	--

Review your Fitbit activity data. Press the crown, swipe up to the Today app , and tap the app to open it. Tap to open the app, and swipe up to see your daily stats. Tap a stat to see more details.

Steps	Steps taken today and progress toward your daily goal.
Floors	Floors climbed today and progress toward your daily goal.
Distance	Distance covered today and progress toward your daily goal.
Calories burned	Distance covered today and progress toward your daily goal.
Active Zone Minutes	Active Zone Minutes and progress toward your daily goal. For more information, see What are Active Zone Minutes or active minutes on my Fitbit device?
Exercise	Number of days you met your exercise goal this week.
Hourly activity	The number of hours today you met your hourly activity goal. For more information, see What are the reminders I see on my Fitbit device?
Heart rate	Current heart rate and heart-rate zone. For more information, see How do I track heart rate with my Fitbit device?

plurality of
categories

Source: <https://support.google.com/fitbit/answer/14237107?hl=en> (annotated)

	<p>We've also brought Fitbit's Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature. When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.</p> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p>
<p>[1.6] wherein category-specific load levels are ascertained by the evaluation unit by means of an arithmetic mean or a weighted mean of features relating to the biometric data pertaining to each category</p>	<p>Company provides a device wherein category-specific load levels are ascertained by the evaluation unit by means of an arithmetic mean or a weighted mean of features relating to the biometric data pertaining to each category in the plurality of categories.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the smartwatch evaluates multiple health metrics such as daily readiness score, sleep score, heart rate data, blood oxygen level, and heart rate variability ("category-specific load levels"), by utilizing the biometric data of the user monitored by the sensors embedded in the smartwatch. Further, the Fitbit Today app displays the sleep score from 1 to 100 (based on the sleep duration, sleep quality and restoration), and blood oxygen level in the percentage score. Therefore, upon information and belief, the health metrics are evaluated by means of an arithmetic mean or a weighted mean of features relating to the biometric data pertaining to each category in the plurality of categories.</p>

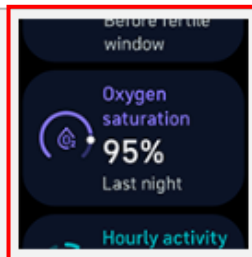
in the
plurality of
categories,

Train with improved fitness tools

It's easier to train with Pixel Watch 2, too. The new Heart Rate Zone Coaching and Pace Training features can help you stay on track with your workout goals — like alerting you to a heart rate zone change during a HIIT workout or offering real-time feedback on your pace goals while marathon training. Meanwhile, automatic workout start and stop reminders are available for seven exercises, including running and outdoor cycling, to help you stick to your schedule.

Not to mention, all the Fitbit features from the original Pixel Watch will still be on Pixel Watch 2 — like **Daily Readiness Score, Sleep Profile, Sleep Score, Active Zone Minutes** and 40 workout modes.

Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

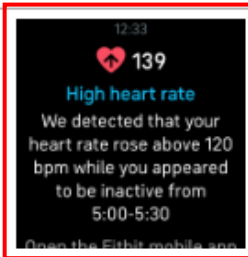


3. Estimate your blood oxygen saturation. Google Pixel Watch 2 uses sensors to estimate your blood oxygen saturation while you sleep.

Note: Blood oxygen saturation tracking is only available on Google Pixel Watch 2.²

For more information, see [How do I track blood oxygen saturation \(SpO2\) with my Fitbit device?](#)

Source: <https://support.google.com/fitbit/answer/14237107?hl=en>





6. Get heart-rate notifications.

Your heart rate is a key indicator of health, so stay informed when Google Pixel Watch 2 detects that your heart rate is unusually high or low.

For more information, see [How do I track heart rate with my Fitbit device?](#)

Source: <https://support.google.com/fitbit/answer/14237107?hl=en>

- **Google Pixel Watch and Google Pixel Watch 2:** Press the crown, swipe up to the Today app , and tap the app to open it. Swipe up to the Sleep card. Your score is displayed under the sleep duration. For a faster way to see your sleep data, add the Sleep tile  to your watch. For more information, see [Change settings, alarms, and notifications on Google Pixel Watch](#).

Source: <https://support.google.com/fitbit/answer/14236513?hl=en>

Your overall sleep score is a sum of your individual scores in sleep duration, sleep quality, and restoration, for a total score of up to 100. Most people get a score between 72 and 83. Sleep score ranges are:

- Excellent: 90-100
- Good: 80-89
- Fair: 60-79
- Poor: Less than 60



Duration: Time asleep and awake	How much you slept. The more you sleep, the better your score.
Quality: Deep and REM sleep	How much time you spent in deep and REM sleep. The more time you spend in these sleep stages, the better your score.
Restoration: Sleeping heart rate and restlessness	How relaxed you were during sleep. A high sleeping heart rate or too much tossing and turning lowers your score.

Source: <https://support.google.com/fitbit/answer/14236513?hl=en>

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.

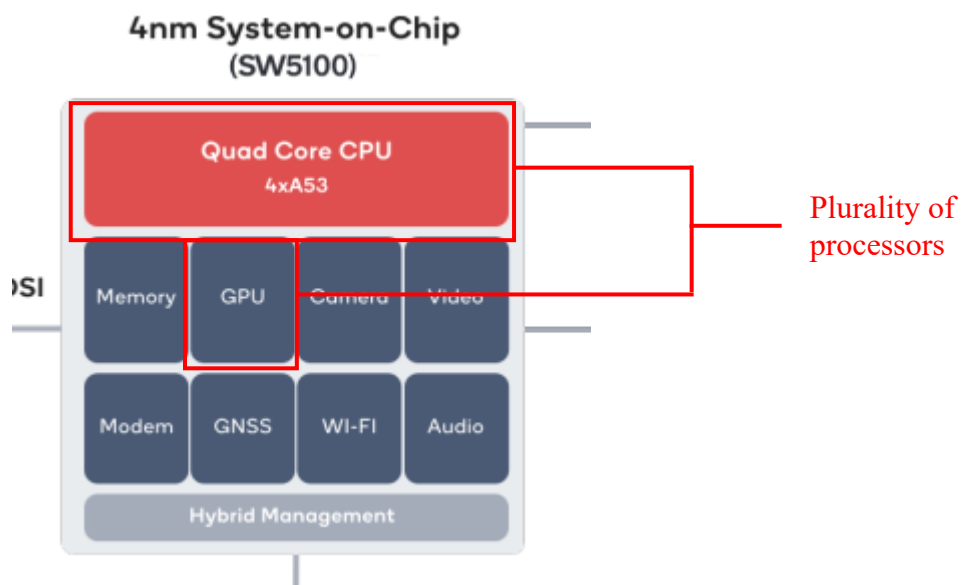
[1.7] the evaluation unit is designed for	Company provides the evaluation unit that is designed for determining the current load level of the user from the biometric data by applying a method carried out in a network of artificial neural networks that includes a plurality of artificial neural networks that interact with each other.
---	---

<p>determining the current load level of the user from the biometric data by applying a method carried out in a network of artificial neural networks that includes a plurality of artificial neural networks that interact with each other,</p>	<p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the Pixel 2 smartwatch uses AI heart rate algorithm to calculate heart rate and further uses machine learning algorithm to calculate a stress management score (“the current load level of the user”) by incorporating the heart rate, heart rate variability, sleep data, activity level data, and skin temperature (“the biometric data”) of the user. Therefore, it would be apparent to a person having ordinary skill in the art that a network of artificial neural networks that includes a plurality of artificial neural networks, interacting with each other, is used to calculate the stress management score for the user.</p> <p>Pixel Watch 2 has three new sensors to give you deeper insights into your health. Working alongside our improved AI heart rate algorithm, an all-new heart rate sensor with numerous LEDs produces a more accurate heart rate reading than ever before.⁷ In fact, it’s up to 40% more accurate for vigorous activities like HIIT, spinning and rowing.⁸ This means you’ll also get more accurate readings for other important health metrics — from calories burned and Active Zone Minutes to Daily Readiness Score and sleep.</p> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/</p> <p>We’ve also brought Fitbit’s Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature.</p> <p>When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.</p> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/</p>
--	--

	<p>Stress management score  — The current load level</p> <p>Your stress management score  in the Fitbit app can help you see how your body responds to stress based on your heart rate, sleep, and activity level data. You can also reflect on how stressed you are to see connections between how you feel and your score. This tile is available for Fitbit Charge 4, Fitbit Charge 5, Fitbit Charge 6, Fitbit Inspire 2, Fitbit Inspire 3, Google Pixel Watch 2, Fitbit Luxe, Fitbit Sense series, Fitbit Versa 2, Fitbit Versa 3, and Fitbit Versa 4 users.</p> <hr/> <p>Source: https://support.google.com/fitbit/answer/14237928 (annotated)</p> <p>Further, to the extent this element is performed at least in part by Defendant’s software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p>
<p>[1.8] a plurality of processors are arranged on the mobile end unit or on the central server, which are designed for calculating the plurality of artificial neural networks in parallel, and</p>	<p>Company provides a plurality of processors that are arranged on the mobile end unit or on the central server, which are designed for calculating the plurality of artificial neural networks in parallel.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the smartwatch comprises a Qualcomm SW5100 chip which consists of a Quad Core CPU and a GPU (“a plurality of processors”). Further, the smartwatch consists of on-device machine learning and deep optimization down to the processor level for accurate heart rate tracking and stress management score calculation using machine learning algorithms. Therefore, it would be apparent to a person having ordinary skill in the art that the smartwatch processors calculate the plurality of artificial neural networks in parallel.</p>

Chip	<ul style="list-style-type: none"> • Qualcomm SW5100 • Cortex M33 co-processor
OS	<ul style="list-style-type: none"> • Wear OS 4.0
Storage and Memory	<ul style="list-style-type: none"> • 32 GB eMMC flash⁷ • 2 GB SDRAM

Source: <https://support.google.com/googlepixelwatch/answer/12651869?hl=en>



Source: Source: <https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-W5%2BW5-Gen1-platform-product-brief.pdf> (annotated)

Health and fitness apps have a lot of opportunity with the latest Wear OS platform and hardware updates. Google Pixel Watch includes Fitbit's amazing health and fitness features, including accurate heart rate tracking with on-device machine learning and deep optimization down to the processor level. Users can get insights into key metrics like breathing rate, heart rate variability, sleep quality and more right on their Google Pixel Watch. With this improved data, there are more opportunities for health and fitness apps to provide meaningful insights and experiences for their users.

The updates and improvements from Wear OS and the Google Pixel Watch make building differentiated app experiences more tangible. Apps are using those capabilities to excite and delight users and so can you.

Source: <https://android-developers.googleblog.com/2022/10/the-new-google-pixel-watch-is-here.html>

Pixel Watch 2 has three new sensors to give you deeper insights into your health. Working alongside our improved AI heart rate algorithm, an all-new heart rate sensor with numerous LEDs produces a more accurate heart rate reading than ever before. ⁷ In fact, it's up to 40% more accurate for vigorous activities like HIIT, spinning and rowing. ⁸ This means you'll also get more accurate readings for other important health metrics — from calories burned and [Active Zone Minutes](#) to [Daily Readiness Score](#) and sleep.

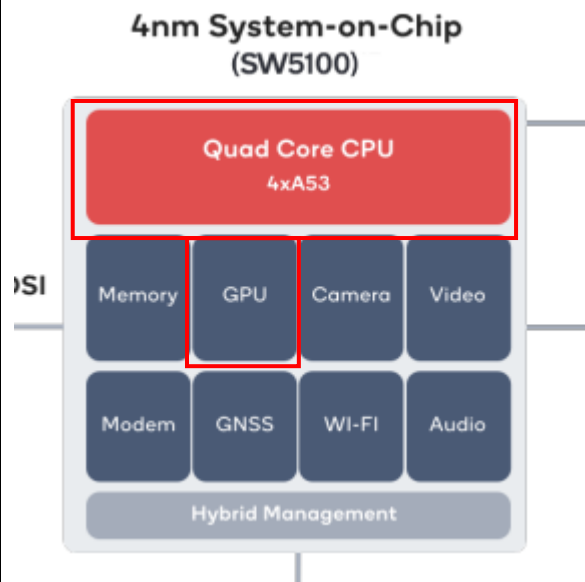
Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

	<p>We've also brought Fitbit's Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature.</p> <p>When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.</p> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/</p> <p>Neural networks are inherently parallel algorithms. Multicore CPUs, graphical processing units (GPUs), and clusters of computers with multiple CPUs and GPUs can take advantage of this parallelism.</p> <p>Source: https://www.mathworks.com/help/deeplearning/ug/neural-networks-with-parallel-and-gpu-computing.html</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p>
<p>[1.9] at least one graphics card with at least one graphics card processor is arranged on the mobile end unit or on the central server and the at least one graphics card</p>	<p>Company provides at least one graphics card with at least one graphics card processor that is arranged on the mobile end unit or on the central server and the at least one graphics card processor supports the calculation of the artificial neural networks.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the smartwatch consists of the Qualcomm SW5100 chip that further comprises a GPU ("graphics card processor"). Further, the smartwatch uses machine learning algorithm which requires neural networks ("calculation of the artificial neural networks") running on multicore CPUs and GPUs. Therefore, upon information and belief, at least one graphics card with the GPU present in the watch supports the calculation of the artificial neural networks.</p>

processor supports the calculation of the artificial neural networks, and

Chip	<ul style="list-style-type: none"> • Qualcomm SW5100 • Cortex M33 co-processor
OS	<ul style="list-style-type: none"> • Wear OS 4.0
Storage and Memory	<ul style="list-style-type: none"> • 32 GB eMMC flash⁷ • 2 GB SDRAM

Source: <https://support.google.com/googlepixelwatch/answer/12651869?hl=en>



Source: <https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-W5%2BW5-Gen1-platform-product-brief.pdf> (annotated)

Health and fitness apps have a lot of opportunity with the latest Wear OS platform and hardware updates. Google Pixel Watch includes Fitbit's amazing health and fitness features, including accurate heart rate tracking with on-device machine learning and deep optimization down to the processor level. Users can get insights into key metrics like breathing rate, heart rate variability, sleep quality and more right on their Google Pixel Watch. With this improved data, there are more opportunities for health and fitness apps to provide meaningful insights and experiences for their users.



The updates and improvements from Wear OS and the Google Pixel Watch make building differentiated app experiences more tangible. Apps are using those capabilities to excite and delight users and so can you.

Source: <https://android-developers.googleblog.com/2022/10/the-new-google-pixel-watch-is-here.html>

Pixel Watch 2 has three new sensors to give you deeper insights into your health. Working alongside our improved AI heart rate algorithm, an all-new heart rate sensor with numerous LEDs produces a more accurate heart rate reading than ever before.⁷ In fact, it's up to 40% more accurate for vigorous activities like HIIT, spinning and rowing.⁸ This means you'll also get more accurate readings for other important health metrics — from calories burned and [Active Zone Minutes](#) to [Daily Readiness Score](#) and sleep.

Source: <https://blog.google/products/pixel/google-pixel-watch-2/>

	<p>We've also brought Fitbit's Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature.</p> <p>When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.</p> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/</p> <p>Neural networks are inherently parallel algorithms. Multicore CPUs, graphical processing units (GPUs), and clusters of computers with multiple CPUs and GPUs can take advantage of this parallelism.</p> <p>Source: https://www.mathworks.com/help/deeplearning/ug/neural-networks-with-parallel-and-gpu-computing.html</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p>
<p>[1.10] wherein the determined current load level of the user is displayed to the user via the mobile end unit in the form of a consolidated load level</p>	<p>Company provides a device wherein the determined current load level of the user is displayed to the user via the mobile end unit in the form of a consolidated load level obtained from a combination of category-specific load levels by the evaluation unit forming the arithmetic mean or weighted mean of the category-specific load levels.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, the smartwatch utilizes the Body Response feature to calculate the stress score ("the determined current load level of the user") for the user and gives a notification to be displayed ("displayed to the user via the mobile end unit") on the smartwatch when the stress score indicates positive or negative stress. Further, the stress score is calculated based on the heart rate, heart rate variability, sleep data, activity data, and skin temperature ("a combination of category-specific load levels"), therefore, upon information and belief, the calculated stress score is a consolidated load level obtained from the arithmetic mean or weighted mean of the category-specific load levels.</p>

<p>obtained from a combination of category-specific load levels by the evaluation unit forming the arithmetic mean or weighted mean of the category-specific load levels.</p>	<div> <p>Stress management score </p> </div> <div> <p>The determined Current load level</p> </div> <div> <p>Your stress management score  in the Fitbit app can help you see how your body responds to stress based on your heart rate, sleep, and activity level data. You can also reflect on how stressed you are to see connections between how you feel and your score. This tile is available for Fitbit Charge 4, Fitbit Charge 5, Fitbit Charge 6, Fitbit Inspire 2, Fitbit Inspire 3, Google Pixel Watch 2, Fitbit Luxe, Fitbit Sense series, Fitbit Versa 2, Fitbit Versa 3, and Fitbit Versa 4 users.</p> </div> <div> <p>Displayed to the user via the mobile end unit</p> </div> <div> <p>Source: https://support.google.com/fitbit/answer/14237928 (annotated)</p> </div> <div> <p>We've also brought Fitbit's Body Response feature to Pixel Watch 2, powered by a new continuous electrodermal activity (cEDA) sensor. This new sensor can point to possible signs of stress using a machine learning algorithm that incorporates heart rate, heart rate variability and skin temperature. When the algorithm picks up on physical indicators of positive and negative stress, including excitement, the Body Response feature will send you a notification. It will then prompt you to either reflect on how you feel at that moment or take actions to reduce your stress, like guided breathing or a mindfulness session. Reflecting on these moments may help you identify patterns to anticipate potential stress and plan ahead.</p> </div> <div> <p>A combination of category-specific load levels</p> </div> <div> <p>Source: https://blog.google/products/pixel/google-pixel-watch-2/ (annotated)</p> </div> <div> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Company.</p> </div>
---	---

2. List of References

1. <https://blog.google/products/pixel/google-pixel-watch-2/>, last accessed on 3rd May, 2024.
2. <https://support.google.com/fitbit/answer/14237107?hl=en>, last accessed on 3rd May, 2024.
3. <https://www.youtube.com/watch?v=Xj8xxCSJ6EM>, last accessed on 3rd May, 2024.
4. <https://support.google.com/googlepixelwatch/answer/12651869?hl=en>, last accessed on 3rd May, 2024.
5. <https://www.youtube.com/watch?v=8tbdWKi-dw8>, last accessed on 3rd May, 2024.
6. <https://www.youtube.com/watch?v=t5OY7r0dt1g>, last accessed on 3rd May, 2024.
7. <https://support.google.com/googlepixelwatch/answer/12759285?hl=en>, last accessed on 3rd May, 2024.
8. <https://youtu.be/YDcHJQfUdYg>, last accessed on 3rd May, 2024.
9. <https://support.google.com/fitbit/answer/14237928>, last accessed on 3rd May, 2024.
10. <https://support.google.com/googlepixelwatch/answer/12651869?hl=en>, last accessed on 3rd May, 2024.
11. <https://www.qualcomm.com/products/mobile/snapdragon/wearables/snapdragon-w5-plus-gen-1-wearable-platform>, last accessed on 3rd May, 2024.
12. <https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/Snapdragon-W5%2BW5-Gen1-platform-product-brief.pdf>, last accessed on 3rd May, 2024.
13. <https://www.qualcomm.com/products/mobile/snapdragon/wearables/wearables-device-finder/pixel-watch-2>, last accessed on 3rd May, 2024.
14. <https://support.google.com/fitbit/answer/14236513?hl=en>, last accessed on 3rd May, 2024.
15. <https://www.mathworks.com/help/deeplearning/ug/neural-networks-with-parallel-and-gpu-computing.html>, last accessed on 3rd May, 2024.
16. <https://android-developers.googleblog.com/2022/10/the-new-google-pixel-watch-is-here.html>, last accessed on 3rd May, 2024.